

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
)

Petition for Rulemaking to Amend the)
Commission's Rules to Redesignate the)
28.6-29.1 GHz (Earth-to-space) and 18.8-19.3 GHz)
(space-to-Earth) Bands to Allow Geostationary)
Fixed-Satellite Service Operations on a)
Co-Primary Basis)
_____)

RM-10767

REPLY COMMENTS OF ECHOSTAR SATELLITE CORPORATION

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SUMMARY

In response to EchoStar Satellite Corporation's petition for a rulemaking to redesignate the 28.6-29.1 GHz and 18.8-19.3 GHz bands as spectrum that can be used both by geostationary satellite orbit ("GSO") and non-geostationary satellite orbit ("NGSO") systems in the Fixed-Satellite Service ("FSS") on a co-primary basis, two of the three commenters, SES Americom, Inc., and Hughes Electronics Corporation along with Hughes Network Systems, Inc., support the petition and EchoStar's conclusion that lifting the domestic restriction on co-primary GSO usage of these bands would increase significantly the chance that the spectrum, which will otherwise lie fallow indefinitely, will be used to provide services benefiting the public interest.

The third commenter, Northrop Grumman Space Technology and Mission Systems Corporation ("Northrop Grumman"), opposes EchoStar's request. Northrop Grumman does not, however, offer any persuasive reason why the Commission should not initiate the requested rulemaking. No bright, concrete prospects for timely deployment of an NGSO system using these bands are presented. Nor does Northrop Grumman point to any true technical impediment that would prevent the Commission from initiating this rulemaking. Northrop Grumman instead asks the Commission, and the public, to forego putting this valuable resource to use in exchange for a sliver of hope that an NGSO system will utilize it at some future point.

Moreover, Northrop Grumman's vehement opposition from the outset to any use of the band other than for NGSO operations signals that the only way to jump start any use of the spectrum is to follow the letter of the recently adopted "First-Come, First-Served" order and grant EchoStar's pending applications seeking operational authority on a non-conforming, non-harmful interference basis. Otherwise, the question will be bogged down in another multi-year rulemaking proceeding with Northrop Grumman fighting a co-primary FSS designation at every

turn. This is precisely the state of affairs – new services frozen during several years of agency deliberation – that the Commission sought to avoid by changing its space station application processing procedures.

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To: The Commission

REPLY COMMENTS OF ECHOSTAR SATELLITE CORPORATION

EchoStar Satellite Corporation ("EchoStar") hereby responds to the comments submitted in connection with EchoStar's petition for a rulemaking to re-designate the 28.6-29.1 GHz and 18.8-19.3 GHz bands as spectrum that can be used both by geostationary satellite orbit ("GSO") and non-geostationary satellite orbit ("NGSO") systems in the Fixed-Satellite Service ("FSS") on a co-primary basis. Two of the three commenters, SES Americom, Inc. ("SES"), and Hughes Electronics Corporation along with Hughes Network Systems, Inc. (collectively "Hughes"), support the petition and EchoStar's conclusion that lifting the domestic restriction on co-primary GSO usage of these bands would increase significantly the chance that the spectrum, which will otherwise lie fallow indefinitely, will be used to provide services benefiting the public interest.

The third commenter, Northrop Grumman Space Technology and Mission Systems Corporation ("Northrop Grumman"), opposes EchoStar's request. Northrop Grumman does not, however, offer any persuasive reason why the Commission should not initiate the

requested rulemaking. Northrop Grumman instead asks the Commission, and the public, to forego putting this valuable resource to use in exchange for the very slim hope that an NGSO system will utilize it at some future point.

Moreover, Northrop Grumman's vehement opposition from the outset to anything other than NGSO use of the band signals that the only way to jump start any use of the spectrum is to follow the letter of the recently adopted "First-Come, First-Served" order and grant EchoStar's pending applications seeking operational authority on a non-conforming, non-harmful interference basis. Otherwise, the question of co-primary use will be bogged down in another multi-year rulemaking proceeding with Northrop Grumman fighting a co-primary FSS designation every step of the way. This is precisely the state of affairs – new services frozen during several years of agency deliberation – that the Commission sought to avoid by changing its procedures in the First-Come, First-Served Order.¹

I. THE COMMISSION SHOULD ACT ON THIS OPPORTUNITY TO PROMOTE MORE EFFICIENT USE OF SPECTRUM

In keeping with its responsibility to promote efficient use of spectrum,² the Commission recently reformed the procedures for space station licensing.³ The Commission has

¹ See *Amendment of the Commission's Space Station Licensing Rules and Policies, First Report and Order and Further Notice of Proposed Rulemaking*, FCC 03-102, IB Docket No.'s 02-34, 02-54 (rel. May, 19, 2003) ("*FCFS Order*") ("delays in the provision of satellite services caused by the current satellite licensing procedure can impose costs on both satellite service providers and their customers. It also results in inefficient spectrum use because it increases the amount of time scarce spectrum orbit and spectrum resources lie fallow.") (footnotes omitted)).

² See *Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium*, 14 FCC Rcd. 19868 at ¶ 2 (1999).

³ See *Amendment of the Commission's Space Station Licensing Rules and Policies, Notice of Proposed Rulemaking and First Report and Order*, 17 FCC Rcd. 3847, 3857 ¶ 4 (2002)

here another opportunity to promote spectrum efficiency. The Commission should take steps, starting with allowing non-conforming GSO operations in the band now,⁴ and initiating the requested rulemaking to re-designate the spectrum and establish appropriate service rules, to facilitate timely use of this spectrum by the entities that are willing and able to do so.

Northrop Grumman urges the Commission to do nothing. In its view, the Commission and the public should wait for an indefinite period to see if an NGSO system will actually be implemented. However, the Commission has already waited six years, only to see its first-round licensee fail and half of the second-round applicants withdraw. These developments portend bleak prospects for deployment of an NGSO system and accordingly, there is no reason for the Commission to wait any longer. Now is the time for the Commission to act to maximize the chance that this spectrum will be used to provide innovative services to the public in a timely fashion.

“First-Come, First-Served NPRM”) (“[I]t is important to adopt rules and policies that promote the maximum use of these limited vital resources. By exploring ways to issue satellite licenses more quickly, we can reduce the amount of time orbit and spectrum resources lie fallow.”).

⁴ See Applications of EchoStar Satellite Corporation, File Nos. SAT-LOA-20030827-00180/00182/00185/00187 (filed Aug. 27, 2003) (“EchoStar Satellite Applications”). Curiously, Northrop Grumman claims that EchoStar’s Petition for Rulemaking failed to mention EchoStar’s applications for authorization to operate GSO satellites in the NGSO spectrum, seemingly accusing EchoStar of concealing its desire for co-primary GSO operations in the NGSO band. See Northrop Grumman Comments at 4. Northrop Grumman is wrong on both counts, however. First, the Petition for Rulemaking explicitly referenced EchoStar’s applications. See Petition for Rulemaking to Redesignate the Non-Geostationary Fixed-Satellite Service Bands to Allow Geostationary Fixed-Satellite Service Operations on a Co-Primary Basis (filed Aug. 27, 2003) (“Pet. for Rulemaking”) at 2. Second, while EchoStar does seek eventual co-primary status for GSOs in the band through this rulemaking, EchoStar’s applications do *not* request co-primary operational authority. Rather, consistent with the *FCFS Order*, they seek authorization to operate on a non-conforming, non-harmful interference basis pending either deployment of an NGSO system or re-designation of the spectrum for co-primary operations. See *id.* at 3.

II. THE BLEAK PROSPECT OF AN NGSO SYSTEM DEPLOYMENT IS NOT ENOUGH REASON TO ALLOW THIS SPECTRUM TO CONTINUE TO LIE FALLOW

EchoStar has pointed out that the reasons for the current designation, which boil down to an expectation that an NGSO system will actually be deployed at some point, have either disappeared or are outweighed by the public interest in having the spectrum utilized in the near term. Northrop Grumman disputes this assertion, arguing that “EchoStar is wrong about the state of non-GSO FSS system deployment.”⁵ Yet, the concrete indications concerning the plans of NGSO proponents are very discouraging. As noted in the Petition for Rulemaking, the only licensee, Teledesic, has given up and surrendered its license, and three of the six second-round applicants have thrown in the towel as well.⁶ Northrop Grumman says nothing concrete or specific about its progress toward deployment of its NGSO system other than to note that it, along with the remaining three applicants, have “been vigorous in their prosecution” of the applications.⁷ However, the Commission cannot rely solely upon the level of enthusiasm a party displays in “prosecution” of its application to predict whether the party will actually deploy a system – Teledesic and Hughes both were “vigorous,” and justly so, in the prosecution of their NGSO interests,⁸ but they nevertheless abandoned those interests.

⁵ Northrop Grumman Comments at 3.

⁶ See Pet. for Rulemaking at 9-10.

⁷ Northrop Grumman Comments at 4-5.

⁸ See *In the Matter of The Establishment of Policies and Service Rules for the Non-Geostationary Satellite Orbit, Fixed Satellite Service in the Ka-band*, 18 FCC Rcd. 13338 (2003) (“*Ka-band NGSO Service Rules*”) (citing many references to the comments of Teledesic and Hughes in the recent rulemaking proceeding that developed rules for sharing among NGSO systems).

Northrop Grumman also claims that the remaining NGSO applicants are entitled to a presumption that their deployment plans “are proceeding apace,”⁹ but cites no authority for this proposition. The fact is, because Section 319 of the Communications Act requires prior Commission authorization for the construction of a space station absent a waiver,¹⁰ the presumption is just the opposite. While the Commission has adopted a rule waiving the prior approval requirement for parties wishing to commence construction,¹¹ this waiver is conditioned upon the applicant notifying the Commission in writing that construction is commencing at the applicant’s risk.¹² In the absence of such notification, the Commission would be right to assume that an applicant has *not* made any progress toward deployment of its planned system. EchoStar is not aware of any notification by Northrop Grumman or any other NGSO applicant informing the Commission that construction has commenced on planned NGSO satellites; Northrop Grumman’s annual report to the Commission, for example, does not contain any such notification.¹³

⁹ Northrop Grumman Comments at 5.

¹⁰ See 47 U.S.C. § 319.

¹¹ See 47 C.F.R. § 25.113(f); In the Matter of Streamlining the Commission’s Rules and Regulations for Satellite Application and Licensing Procedures, 11 FCC Rcd. 21581 (1996) at ¶¶ 6-9.

¹² See *EchoStar Satellite Corp., Application for Modification of Authorization to Construct, Launch and Operate a Ka-band Satellite System in the Fixed-Satellite Service*, Order and Authorization, DA 03-2559 (Int’l Bur. rel. Aug. 1, 2003), 2003 FCC LEXIS 4368, at ¶ 10.

¹³ See Letter from David S. Keir, Counsel to Northrop Grumman Space Technology and Mission Systems Corporation, to Donald Abelson, FCC, (dated June 30, 2003). Since no NGSO proponent has commenced construction of its system, there is no merit to arguments that the requested rulemaking will result in further delay in deployment, as the NGSO proponents would not have to scrap or revamp partially-constructed satellites and start “from scratch” to incorporate any technical requirements developed as part of the rulemaking.

Even if the Commission licenses these parties early next year as Northrop Grumman predicts, it will be several more years from that time before any NGSO system is actually put into operation, if ever.¹⁴ The deployment framework created by the Commission includes a milestone schedule that gives NGSO licensees three and one-half years to launch and operate their first two satellites, and six years to bring all licensed satellites into operation.¹⁵ The public accordingly faces an additional six year wait, on top of the six years that have already gone by, before it has any chance of being served by this spectrum.¹⁶ Likewise, the Commission will have to wait itself for several years before it can even ascertain whether the new licensees are proceeding in compliance with their milestones.

Moreover, the costs of deploying an NGSO system, particularly in the current financial climate, also make the prospect unlikely. In 1997 when the initial application was filed, Northrop Grumman's predecessor, TRW, Inc., estimated that the total cost of its proposed 19 satellite system would be \$ 3.4 billion.¹⁷ Doubtless, the cost in 2003 dollars will be far greater. While Northrop Grumman chides EchoStar for bringing to the Commission's attention a trade

¹⁴ Significantly, a U.S. NGSO FSS system is unlikely to be deployed by the ITU "bring-into-use" date of May 2005. *See, e.g., Ka-Band NGSO Service Rules*, 18 FCC Rcd. 13338, ¶ 51 ("In this case, the ITU milestones for bringing these frequencies into use will occur, at the latest, in May 2005.")

¹⁵ *Id.* at ¶ 53.

¹⁶ This assumes, of course, that licenses are issued to second-round applicants in the next few months, and that the new licensees complete their deployment on time.

¹⁷ This estimate includes pre-operating expenses and first-year operating expenses. *See* Application of TRW, Inc. for Authority to Launch and Operate a Global System Employing Geostationary and Nongeostationary Satellites in the Fixed-Satellite Service, File No. SAT-112-P/LA-97 (filed Sept. 4, 1997) at 69; *See* Amendment to Application of TRW, Inc. for Authority to Launch and Operate a Global System Employing Geostationary and Nongeostationary Satellites in the Fixed-Satellite Service, File No. SAT-AMD-19971222-00229 (filed Dec. 22, 1997), at 13 (explaining that there will be little or no incremental costs associated with the addition of Ka-band NGSO payloads to its planned V-band satellites).

press article describing the funding difficulties experienced by an NGSO licensee, the article merely reports what those in the industry are experiencing first-hand.¹⁸ EchoStar's conclusion regarding the dim prospects for NGSO deployment is not, as Northrop Grumman suggests, "based solely on a negative trade press article."¹⁹ The conclusion is based on the undeniable fact that a constellation of several NGSO satellites is extremely costly to implement, and that the current financial climate is very challenging. The confluence of these two facts has resulted in the sole NGSO licensee surrendering its license, and the withdrawal of three of the six second round applicants. This record is not something that the Commission should simply ignore.

These hurdles are not impossible to overcome, but Northrop Grumman unwittingly hurts the NGSO applicants' case by its ostrich-like attitude of completely ignoring the obstacles faced by the applicants. Northrop Grumman essentially urges the Commission to adopt a rigid spectrum management approach by refusing to authorize any but NGSO systems in the band. However, this policy may have unanticipated consequences for NGSO licensees because if the Commission agreed to continue to exclude other FSS systems, it would have no choice but to also enforce rigidly the NGSO licensees' milestones to ensure that the spectrum will not lie totally unused.²⁰

¹⁸ Indeed, Northrop Grumman cited the "current difficulties being experienced in the satellite industry" when requesting reversal of the Commission's decision to impose a bond requirement on entities that had applications pending prior to adoption of the *FCFS Order*. See Petition for Partial Reconsideration of Northrop Grumman Space Technology and Mission Systems Corporation, filed in *Amendment of the Commission's Space Station Licensing Rules and Policies*, IB Docket No. 02-34 (dated Sept. 26, 2003) at 8.

¹⁹ Northrop Grumman Comments at 5.

²⁰ The Commission has already signaled its intention to rigidly enforce NGSOs' milestones in the interest of ensuring that the spectrum is used efficiently. See *NGSO Service Rules* at ¶ 52 ("We are . . . obligated to ensure that the public interest in efficient use of spectrum resources is met. NGSO FSS applicants must be prepared to move expeditiously upon licensing

On the other hand, if the Commission licenses another use of the spectrum, the pressure to enforce these milestones unforgivingly may be reduced because the chances of the spectrum being converted to productive use over the next few years will be greater. This may mean in turn that NGSO system licenses could reasonably request more flexible treatment from the Commission than would otherwise be the case. In short, a more flexible spectrum allocation could help boost the chances of an NGSO system deployment.

III. THE OTHER REASONS OFFERED FOR MAINTAINING THE CURRENT ALLOCATION DO NOT JUSTIFY CONTINUING TO ALLOW THE SPECTRUM TO LIE FALLOW

To suggest that there would be an added payoff for allowing the NGSO spectrum to continue to lie unused, Northrop Grumman asserts that NGSO systems offer a “unique” advantage over GSO systems in that NGSOs can serve areas such as Alaska that are “poorly served” by GSOs.²¹ EchoStar’s experience, however, demonstrates that Northrop Grumman overstates its case. EchoStar’s GSO satellites provide video service to Alaska from western orbital locations, bearing out the Commission’s conclusion that it is technically feasible for GSO Direct Broadcast Satellites to serve Alaska from CONUS and western orbital locations.²² In any event, even if NGSOs were capable of providing significantly better service than GSOs to certain areas, the point is purely an academic one. Service to these areas by GSOs, while preserving the slim NGSO prospects, is preferable to no service at all and exclusive reliance on these mere prospects. To enhance the possibility that areas like Alaska get satellite broadband service, the

or expect to lose their licenses. We will therefore insist on strict adherence to milestones in this service.”)

²¹ See Northrop Grumman Comments at 9.

²² See *Revision of Rules and Policies for the Direct Broadcast Satellite Service*, Report and Order, 11 FCC Rcd. 9712 (1995), at ¶ 128.

Commission must adopt the proposal most likely to result in the spectrum being utilized – it must allow flexible use of these bands.

Finally, a desire to preserve the Commission’s overall plan for the Ka-band cannot outweigh the Commission’s responsibility to assess recent developments in the industry and technology and take those developments into account in crafting its spectrum utilization policies. Northrop Grumman seems to believe that the current Ka-band plan must be frozen into place because of the length of time required to develop it.²³ Unquestionably, the Commission has done a commendable job of developing a plan to accommodate the various potential uses of the Ka-band, as they could best be predicted at the time – a time when the system proposed by Teledesic appeared to be the best hope for last-mile broadband capability. As the Commission has acknowledged on countless occasions, however, its ultimate goal and responsibility is to ensure that spectrum resources are used efficiently. Accordingly, no matter how reasonable and well-thought-out the plan was at the time, if there are aspects of it that now result in spectrum lying fallow, the plan must be reassessed and refined.²⁴

²³ See Northrop Grumman Comments at 8-9.

²⁴ Indeed, courts have held that the Commission has an affirmative duty to examine the effect of changed circumstances on the public interest, to fulfill its statutory obligation to promulgate rules that are consistent with the public interest. See *Geller v. FCC*, 610 F.2d 973, 980 (D.C. Cir. 1979); *Associated Builders & Contractors, Inc. v. Herman*, 976 F.Supp. 1, 8 (D.D.C. 1997) (an agency is “required to re-examine regulations where the rationale for their adoption no longer exists due to changed circumstances.”) (citing *Geller*). Thus, because of the change in circumstances, the fact that the Commission previously denied proposals for co-primary GSO operations in these bands is no impediment to the Commission’s re-evaluation of the current spectrum allocation.

IV. THE AVAILABILITY OF OTHER ORBITAL LOCATIONS FOR KA-BAND GSO FSS OPERATIONS DOES NOT JUSTIFY A REFUSAL TO REVISIT THE NGSO ALLOCATION

Northrop Grumman suggests here, as it does in opposing EchoStar's satellite applications, that the Commission should do nothing because there is "no shortage of orbital locations from which EchoStar or any other putative GSO FSS operator can seek to provide Ka-band service to the continental United States."²⁵ However, as EchoStar has noted in the application proceedings, Northrop Grumman's argument ignores the distinct efficiency advantage in using a broader frequency band at one orbital location over using the same overall bandwidth across multiple orbital locations. A licensee with authorizations for 1.5 GHz of spectrum at each of two locations could launch two satellites that provide service across that spectrum much more cost-effectively than a licensee with licenses for 1 GHz at each of three slots. The Commission has long recognized the cost efficiencies associated with hybrid satellites,²⁶ and these efficiencies are greater still for satellites that can be built so that a single payload can operate over a wider range of spectrum.

Greater bandwidth at a single location also leads to significant efficiencies in earth station design, as customer dishes would not necessarily have to be equipped with the multiple feeds needed for access to several satellites at different orbital locations. The use of

²⁵ Northrop Grumman Comments at 7.

²⁶ See *EchoStar Satellite Corp.*, DA 03-2559, 2003 FCC LEXIS 4368 (rel. Aug. 1, 2003) ("In past decisions, the Commission has recognized the cost efficiencies inherent in hybrid satellites and has attempted to accommodate hybrid satellites where possible."). See also *Amendment of the Commission's Space Station Licensing Rules and Policies*, 18 FCC Rcd 10760, at ¶ 145 (rel. May 19, 2003); *Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, 12 FCC Rcd 22310, 22322 (1997).

multiple feeds affects in turn the cost of the customer equipment and also reduces the performance for the feeds that are off-focus. By having the maximum amount of spectrum, and hence capacity, at a single orbital location, the service provider may be able to provide some customers with single feed dishes, with the single feed located at the optimum position, relative to the focus of the reflector, to achieve the highest gain and best sidelobe performance.

Northrop Grumman dismisses EchoStar's explanation of why additional spectrum is needed for GSO FSS operations,²⁷ but the Commission is well aware of the bandwidth constraints EchoStar faces. As EchoStar noted in its applications, EchoStar is in urgent need of additional spectrum and bandwidth to compete more effectively with the bundled offerings of digital cable.²⁸ Without additional spectrum, EchoStar's ability to offer comparable packages of high-speed Internet access and other broadband services as well as high-definition television and local-into-local channels that compete with incumbent cable operators will be significantly hampered. Accordingly, the need for the spectrum is not the "unanswered question" that Northrop Grumman describes.

V. THERE IS AN ADEQUATE TECHNICAL FOUNDATION FROM WHICH TO DEVELOP SHARING RULES FOR NGSOs AND GSOs IN THE KA-BAND

While Northrop Grumman disputes the applicability of the EPFD limits already adopted by the ITU for sharing by NGSOs and GSOs in the Ka-band, it does not argue that sharing is impossible from a technical standpoint. Instead, Northrop Grumman contends that the EPFD limits developed so far (which impose limits on the NGSO systems operating in a

²⁷ See Northrop Grumman Comments at 6.

²⁸ See EchoStar Application at 7-10.

particular band with GSOs and not the other way around) will “handicap” NGSOs by requiring them to accept “undesirable design constraints.”²⁹

Doubt about the technical feasibility of sharing was among the primary reasons for the Commission’s decision not to make GSOs co-primary in the band.³⁰ However, as EchoStar explained in its Petition for Rulemaking, this doubt has been resolved, as the groundwork for developing sharing rules has been laid by the ITU and the Commission itself.³¹

The Commission’s other reasons – the desire to give NGSOs a particular quantum of primary spectrum, and relieving NGSOs of the possible cost constraint of having to avoid alignment situations with the geostationary orbit – were policy-related rationales, and it is here that Northrop Grumman joins issue, under the guise of raising concerns about technical feasibility. The question of what “design constraints” are acceptable, if such constraints are an unavoidable consequence of the necessary EPFD limits, is a matter the Commission will have to consider and decide as it weighs the importance of putting this spectrum to timely use against a desire to facilitate NGSO operations in the band. The fact that such policy questions need to be

²⁹ Northrop Grumman Comments at 16 & n.29. Northrop Grumman also asserts that the current ITU regulations provide inadequate protection to NGSOs from co-frequency GSO emissions. However, any NGSO system designed to comply with the EPFD limits adopted by the ITU is unlikely to require any additional interference protection from GSO systems. The reason for this is because to comply with the EPFD limits, the NGSO system will employ features in its design that involve turning off certain spot beams at times when they align with the geostationary orbit as viewed from the service area of the spot beam. This NGSO system design approach has been exhaustively studied and validated in the ITU (JTG 4-9-11 and WP4A), and has been shown to inherently protect the NGSO system from GSO interference and vice versa. The interference protection between GSO and NGSO systems is essentially reciprocal when this design approach is employed.

³⁰ See *First 28 GHz Band Order*, 11 FCC Rcd. at 19030, ¶ 59 (“[u]ntil such time as studies are completed in the ITU-R, we cannot conclude that co-frequency sharing is possible between GSO/FSS systems and NGSO/FSS systems . . .”).

³¹ See Pet. for Rulemaking at 12.

addressed is not a ground for refusing to initiate a rulemaking. The whole point of the rulemaking is to address and answer these questions.

The sharing rules already developed by the ITU for the Ka-band, and those the Commission has adopted for the Ku-band, are a useful starting point for developing sharing criteria for the 28.6-29.1 and 18.8-19.3 GHz bands.³² Thus, the Commission's previously-expressed concern about the technical feasibility of sharing is no longer an impediment to designating GSO systems as co-primary with NGSOs in the band, and there is no technological reason for the Commission not to initiate the requested rulemaking.

VI. GSO SYSTEMS SHOULD BE MADE CO-PRIMARY, RATHER THAN SECONDARY, TO NGSOs IN THE BAND

Northrop Grumman states that it is willing to accept secondary GSO operations in the band.³³ With respect to the uplink spectrum, Northrop Grumman is simply proposing to "give" GSOs what they already have, since GSOs are currently permitted to operate in the 28.6-29.1 GHz band on a secondary basis.

EchoStar has already proposed that GSOs operate in the band on a non-harmful interference basis while the Commission conducts the requested rulemaking. If the Commission concludes that this band has already remained unused for too long a time, as it should, the requested rulemaking should result in a co-primary allocation to the type of operation more likely to accomplish timely utilization of the spectrum.

³² See *Ka-Band NGSO Service Rules*, 18 FCC Rcd. 13338, ¶ 29 (noting that the development of sharing criteria among NGSOs in the Ka-band was "informed" by the criteria developed for the Ku-band, "[g]iven the strong similarities between Ku- and Ka-band NGSO FSS system characteristics . . ."). In light of this observation, there is certainly merit to the suggestion that the Commission's work on sharing rules for GSOs and NGSOs in the Ku-band may serve as a useful guide for developing similar rules for the Ka-band.

³³ Northrop Grumman Comments at 18.

VII. CONCLUSION

EchoStar is by no means alone in its belief that the Commission should commence a rulemaking to update its rules and accommodate changed circumstances in the satellite industry by re-designating the 28.6-29.1 and 18.8-19.3 GHz bands as spectrum that can be used both by GSO and NGSO FSS systems on a co-primary basis. SES and Hughes concur with EchoStar that lifting the domestic restriction on co-primary GSO usage of these bands would increase significantly the chance that the spectrum will be used to provide services benefiting the public interest. Northrop Grumman fails to provide a persuasive argument for allowing this spectrum to remain unused indefinitely.

Respectfully submitted,



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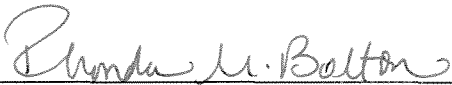
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I hereby certify that on this 12th day of November 2003, a copy of the foregoing
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